

Remarks:

Reconsideration of the application is requested.

Claims 11-12, 14-15, and 24-31 remain in the application.

Claims 27, 30, and 31 have been amended.

In paragraph 2 on page 2 of the above-identified Office action, claims 27 and 30-31 have been rejected as being indefinite under 35 U.S.C. § 112, second paragraph.

Claim 27 has been amended to refer to a layer thickness between 0.05 μm and 50 μm .

Claims 30 and 31 have been amended to refer to the first insulating layer.

Applicants greatly appreciate the indication of the errors.

Claims 31 and 28 are not identical since one claim refers to "in the first working step" and the other refers to "after the first working step".

It is accordingly believed that the specification and the claims meet the requirements of 35 U.S.C. § 112, second paragraph. Should the Examiner find any further objectionable

items, counsel would appreciate a telephone call during which the matter may be resolved. The above noted changes to the claims are provided solely for the purpose of satisfying the requirements of 35 U.S.C. § 112. The changes are neither provided for overcoming the prior art nor do they narrow the scope of the claims for any reason related to the statutory requirements for a patent.

In item 3 on page 2 of the Office action, claims 11-12, 14-15, and 24-31 have been rejected as being obvious over Ting et al. (5,169,680) in view of Subrahmanyam (WO 99/34424) under 35 U.S.C. § 103. Applicants respectfully traverse.

Claim 11 includes at least one activated region that is selected from a region of the lower or the upper insulating layer.

Claim 24 includes a step of, "in a second working step, activating at least one region of the lower insulating layer".

Claim 27 includes a step of, "in a third working step, activating a layer selected from the group consisting of the first insulating layer and the second insulating layer".

It should be clear that it is an insulating layer or a region of an insulating layer that is activated.

In contrast, Ting et al. teach activating metal layers and not activating insulating layers. The reference is totally silent with regard to activating insulating layers. Likewise, Subrahmanyam (WO 99/34424) also does not teach activating insulating layers.

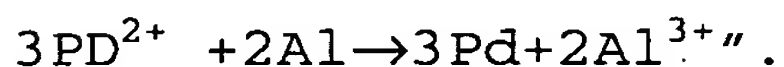
With regard to document Ting et al. (US 5,169,680), the Examiner cites column 9, lines 15 to 28, and interprets this passage as teaching that "the dielectric layers are selectively metallized on a through-hole formed therein or on their surfaces. The through-hole and/or the dielectric surfaces are catalytically treated or activated before metal is deposited (col. 9, lines 15-28)."

The cited passage reads as follows:

"The exact process to be used will depend on the underlying layer and the selective depositing material chosen, wherein if the underlying layer is comprised of silicon or polysilicon, then the earlier described displacement deposition can be utilized. The displacement deposition can also be enhanced by adding a reducing agent to the deposition process. If the underlying layer is comprised of Al, then the electroless deposition technique, which first develops a catalytic surface as taught in the earlier description, is utilized develop a catalytic surface on Al."

The electroless deposition technique referred to in this passage is described in column 6, lines 9 to 19 and reads as follows:

"For example, if region 15 is comprised of Al, then selective deposition of Ni on the Al surface can not be achieved directly because Al is not catalytic to Ni deposition. However, Ni deposition on aluminum can be achieved by first activating the Al surface of region 15 by a thin layer of Pd. The Pd activation is achieved by utilizing a suitable chemical solution, such as PdCl_2 as shown by the following equation:



As can be gathered from this passage and from the entire description of Ting et al, the layers which are activated are metal layers. Throughout the entire description, there is no teaching or suggestion with regard to activating dielectric or insulating layers.

It is an object of the present invention to provide a component which comprises at least two insulating layers, with a possibility of compensating for physical weaknesses of one insulating layer by the subsequent insulating layer.

Ting et al. do not teach or suggest providing two insulating

layers, one above the other, wherein one of the insulating layers compensates the physical weakness of the other and wherein at least a region of one of the insulating layers is activated.

With regard to Subrahmanyam (WO 99/34424), the Examiner refers to page 4, lines 27 to page 5, line 2. However, as can be gathered from this passage, this reference only teaches using Ti or Ti/TiN as a diffusion barrier layer. In this context it is important to note that Ti and TiN are conductive layers and not insulating layers.

Therefore, Subrahmanyam does not teach or suggest activating an insulating layer or a region of an insulating layer and does also not disclose the compensation of the physical weakness of one insulating layer by another.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 11, 24 or 27. Claims 11, 24 or 27 are, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on one of these claims, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 11-12, 14-15, and 24-31 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, he is respectfully requested to telephone counsel so that, if possible, patentable language can be worked out.

Petition for extension is herewith made. The extension fee for response within a period of two months pursuant to Section 1.136(a) in the amount of \$410.00 in accordance with Section 1.17 is enclosed herewith.

Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

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For Applicants

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